

Appl. No. 09/707,167
Response dated November 7, 2003
Reply to Office action of June 18, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-17 (deleted).

Claim 18 (previously amended): A method for the isolation of a recombinant polypeptide from a cell, said cell comprising oil bodies and the recombinant polypeptide, said method comprising:

(1) contacting (i) said oil bodies with (ii) a protein ligand molecule that associates with the oil bodies and the target molecule, and (iii) said recombinant polypeptide to allow said recombinant polypeptide to associate with said oil bodies through the protein ligand molecule, wherein the protein ligand molecule is not a protein that is normally associated with oil bodies; and

(2) isolating said oil bodies associated with said recombinant polypeptide.

Claim 19 (deleted).

Claim 20 (previously amended): A method according to claim 18 wherein said ligand is an antibody, an antibody fragment or a single chain antibody that binds to an oil body protein.

Claim 21 (deleted).

Claim 22 (currently amended) A method according to claim 18 for the isolation of a recombinant polypeptide from a cell, said cell comprising oil bodies and the recombinant polypeptide, said method comprising:

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a) introducing into said cell (i) a first nucleic acid sequence molecule encoding a recombinant polypeptide and (ii) a second nucleic acid sequence encoding a ligand capable of associating with said recombinant polypeptide and with said oil bodies;

b) growing said cell under conditions permitting the expression of said recombinant polypeptide and said ligand;

c) contacting (i) said oil bodies with (ii) said recombinant polypeptide to allow said recombinant polypeptide to associate with said oil bodies through said ligand; and

d) isolating said oil bodies associated with said recombinant polypeptide

Claim 23 (original): A method according to claim 22 wherein said recombinant polypeptide is prepared as a fusion protein with said ligand and wherein the ligand is not a protein that is normally associated with oil bodies.

Claim 24 (original): A method according to claim 23 wherein said ligand is an antibody, an antibody fragment or single chain antibody that binds to an oil body protein.

Claim 25 (currently amended): A method according to claim 20 wherein said contacting results in follows the substantial disruption of the cell's integrity.

Claim 26 (original): A composition comprising oil bodies associated with a ligand molecule covalently attached to a target molecule.

Claim 27 (original): A composition according to claim 26 wherein the ligand molecule and the target molecule are proteins.

Claim 28 (original): A composition according to claim 27 wherein the ligand molecule and target molecules are covalently attached as a recombinant fusion protein and wherein the ligand is not a protein that is normally associated with oil bodies.

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Claim 29 (previously inserted): A method for the separation of a target molecule from a sample comprising:

(1) contacting (i) oil bodies with (ii) a protein ligand molecule that associates with the oil bodies and the target molecule, and (iii) a sample containing the target molecule to allow the target molecule to associate with the oil bodies through the protein ligand molecule, wherein the protein ligand molecule is not a protein that is normally associated with oil bodies; and

(2) separating the oil bodies and ligand molecule associated with the target molecule from the sample.

Claim 30 (previously inserted): A method according to claim 29 wherein the protein ligand molecule is an antibody or a fragment thereof.

Claim 31 (previously inserted): A method according to claim 30 wherein the antibody is a single chain antibody.

Claim 32 (previously inserted): A method according to claim 29 wherein the sample is a cell.

Claim 33 (currently amended): A method according to claim 29 wherein the target molecule is a protein target molecule and the protein ligand molecule is prepared as a fusion protein with the protein target molecule.

Claim 34 (previously inserted): A method according to claim 32 wherein said target molecule associates with the oil bodies through the protein ligand molecule upon the substantial disruption of said cell's integrity.

Claim 35 (previously inserted): A method according to claim 29 wherein the target molecule is a protein.